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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/647,591

08/26/2003

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K2291.0108

2405

32172 7590 05/19/2008

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EXAMINER

HUERTA, ALEXANDER Q

ART UNIT

PAPER NUMBER

2623

MAIL DATE

DELIVERY MODE

05/19/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/647,591	Applicant(s) TERASAKI, HIROSHI	
	Examiner ALEXANDER Q. HUERTA	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14, 16, 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16, 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5, 7-9, 14, 16, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fritsch (United States Patent Application Publication 2002/0124258), in view of Williamson et al. (United States Patent Application Publication 2003/0208767), herein referenced as Fritsch and Williamson, respectively.

Regarding **claim 1**, Fritsch discloses "a method for delivering multimedia data from a transmitter to each of a plurality of receivers through a network" ([0014], Fig. 2). The method comprising the steps of: at the transmitter,

a) "delivering real-time multimedia data in multicast to the receivers while storing the real-time multimedia data into a first memory (314)" ([0033], [0034]);

b) "when having received a time-shift transition command from a receiver, reading time-shifted multimedia data from the first memory depending on the time-shift transition command" ([0034], Fig. 3A, i.e. the user requests a pause command);

c) "transmitting the time-shifted multimedia data in unicast to the receiver which originated the time-shift transition command" [0034];

at the receiver,

d) "receiving the real time multimedia data in multicast from the transmitter before transmitting the time-shift transition command" [0034];

e) "receiving the time shifted multimedia data in unicast from the transmitter after transmitting the time-shift transition command" [0034];

Fritsch fails to disclose "transitioning from time shifted multimedia data to real time multimedia data when the difference between a time-shifted time stamp and a real-time time stamp is smaller than a predetermined threshold".

Williamson discloses "transitioning from time shifted multimedia data to real time multimedia data when the difference between a time-shifted time stamp and a real-time time stamp is smaller than a predetermined threshold" [0065]. Therefore, it would have been obvious to one of ordinary skill in the art to use a predetermined threshold used in client's receiver to switch over the received time-shifted stream to the real-time stream as taught by Williamson. Using the known technique of a predetermined threshold for switching from time-shifted media to real-time media in the client machine of Fritsch would have been obvious to one of ordinary skill.

Regarding **claim 5**, Fritsch discloses that "the time shift transition command is one of a replay start location, a pause command, a reverse command, a slow-replay command, and a fast-forward command" [0034].

Regarding **claim 7**, Fritsch discloses "managing a delivery status including a transmission status, a transmission mode, and time information for each of the receivers" ([0040], i.e. the media delivery center (400) manages how the content is distributed to the user. Furthermore, one of ordinary skill in the art would recognize that

the media delivery center (400) would also be responsible for ensuring that the media is delivered at its scheduled time to the user, which meets the limitation of managing time information of receivers).

Regarding **claim 8**, Fritsch discloses "a method for delivering multimedia data from a transmitter to each of a plurality of receivers through a network" ([0014], Fig. 2). The method comprising steps of:

"when having received a start request command from a receiver, the transmitter delivering real-time multimedia data in multicast to the receiver while storing the real-time multimedia data into a first memory" ([0033], [0034]);

"when having received a time-shift transition command from the receiver, reading time-shifted multimedia data from the first memory depending on the time-shift transition command, to transmit the time-shifted multimedia in unicast to the receiver which originated the time-shift transition command" [0034]; and

"when having received a termination request command from the receiver" [Claim 8].

Fritsch fails to disclose "when having determined the difference between a time-shifted time stamp and a real-time time stamp is smaller than a predetermined threshold, transitioning from time shifted multimedia data to real time multimedia".

Williamson discloses "when having determined the difference between a time-shifted time stamp and a real-time time stamp is smaller than a predetermined threshold, transitioning from time shifted multimedia data to real time multimedia" [0065]. Therefore, it would have been obvious to one of ordinary skill in the art to use a

Art Unit: 2623

predetermined threshold used in client's receiver to switch over the received time-shifted stream to the real-time stream as taught by Williamson. Using the known technique of a predetermined threshold for switching from time-shifted media to real-time media in the client machine of Fritsch would have been obvious to one of ordinary skill.

Regarding **claim 9**, Fritsch discloses “a system for delivering multimedia data from a transmitter to each of a plurality of receivers through a network” [Fig. 2], wherein the transmitter comprises:

“an input section for inputting real-time multimedia data” ([0031], Fig. 2);

“a multicast transmitter (multicast delivery unit) for transmitting the real-time multimedia data to each of the receivers” ([0034]. Fig. 3A);

“a first unicast transceiver for receiving a command from a receiver and transmitting a response to the receiver” [0034];

“a command analyzer for analyzing a command received from the receiver to determine a type of the received command” ([Fig. 6A], i.e. Fritsch teaches that the system determines if a pause command is issued in step 610. Although, Fritsch does not explicitly disclose a command analyzer he teaches that a determination is made as to whether or not a command is issued, which meets the limitation of a command analyzer); “a first memory (314) for storing the real-time multimedia data” ([0034], Fig. 3A);

“a first controller (media delivery hardware 408) controlling the multicast transmitter, the unicast transceiver and the first memory, such that the real-time

multimedia data is delivered in multicast to each of the receivers while storing the real-time multimedia data into the first memory ([0042], Fig. 4); wherein, when having received a time-shift transition command from a receiver, time-shifted multimedia data is read from the first memory depending on the time-shift transition command and is transmitted in unicast to the receiver which originated the time-shift transition command" ([0034], Fig. 6A) , and

each of the receivers comprises:

"a multicast receiver for receiving the real-time multimedia data from the transmitter" ([0045], Fig. 5);

"a second unicast transceiver for transmitting a command to the transmitter and receiving a response to the command from the transmitter" ([0045], Fig. 5 St. 508); and

"a second controller controlling such that the real-time multimedia is received in multicast from the transmitter before transmitting the time-shift transition command, and the time-shifted multimedia data is received in unicast from the transmitter after transmitting the time-shift transition command" ([0016], [0045]).

Fritsch fails to disclose "a data reception selector which upon receiving a real-time stamp and a time-shifted timestamp, determines the difference between the time-shifted time stamp and the real-time time stamp, wherein, if the difference between the time-shifted time stamp and the real-time stamp is smaller than a predetermined threshold, the second controller performs a transition from time shifted multimedia data to real time multimedia data".

Williamson discloses “a data reception selector which upon receiving a real-time stamp and a time-shifted timestamp, determines the difference between the time-shifted time stamp and the real-time time stamp, wherein, if the difference between the time-shifted time stamp and the real-time stamp is smaller than a predetermined threshold, the second controller performs a transition from time shifted multimedia data to real time multimedia data” [0065]. Therefore, it would have been obvious to one of ordinary skill in the art to use a predetermined threshold used in client's receiver to switch over the received time-shifted stream to the real-time stream as taught by Williamson. Using the known technique of a predetermined threshold for switching from time-shifted media to real-time media in the client machine of Fritsch would have been obvious to one of ordinary skill.

Regarding **claim 14**, claim 14 is interpreted and thus rejected for the reasons set forth above in the rejection claim 7. Claim 7 discloses a method for delivering multimedia data from a transmitter to each of a plurality of receivers and claim 14 discloses a system implementing the method. Thus, claim 14 is rejected.

Regarding **claim 16**, claim 16 is interpreted and thus rejected for the reasons set forth above in the rejection of claim 9. Claim 9 discloses a system for delivering multimedia data from a transmitter to each of a plurality of receivers and claim 16 discloses a receiver for receiving multimedia data from a transmitter. Thus, claim 16 is rejected.

Regarding **claim 16**, claim 16 is interpreted and thus rejected for the reasons set forth above in the rejection of claim 9. Claim 9 discloses a system for delivering

multimedia data from a transmitter to each of a plurality of receivers and claim 16 discloses a receiver for receiving multimedia data from a transmitter. Thus, claim 16 is rejected.

Regarding **claim 18**, claim 18 is interpreted and thus rejected for the reasons set for above in the rejection of claim 9. Claim 9 discloses a system for delivering multimedia data from a transmitter to each of a plurality of receivers and claim 18 discloses a program instructing a computer to receive multimedia data from a transmitter. Thus, claim 18 is rejected.

Claims 2, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fritsch in view of Williamson, and in further view of Cook et al. (United States Patent Application Publication 2003/0018966), herein after referenced as Cook.

Regarding **claim 2**, Fritsch fails to disclose "adding a time stamp to each transmission block size of the real-time multimedia data; storing the real-time multimedia data with time stamps into the first memory; and delivering the real-time multimedia data with time stamps to the receivers".

Cook discloses "adding a time stamp to each transmission block size of the real-time multimedia data; storing the real-time multimedia data with time stamps into the first memory; and delivering the real-time multimedia data with time stamps to the receivers" [0104]. Therefore, it would have been obvious to one of ordinary skill in the art to add a timestamp to the real-time multimedia at the head-end to ensure time critical media is delivered promptly as taught by Cook. Using the known technique of

timestamps for prompt transmission of real-time media in the server of Fritsch would have been obvious to one of ordinary skill.

Regarding **claim 10**, claim 10 is interpreted and thus rejected for the reasons set forth above in the rejection claim 2. Claim 2 discloses a method for delivering multimedia data from a transmitter to each of a plurality of receivers and claim 10 discloses a system implementing the method. Thus, claim 10 is rejected.

Claims 3, 4, 11, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fritsch in view of Williamson, in view of Thompson, and in further view of Rangan et al. (United States Patent 6,154,771), herein referenced as Rangan.

Regarding **claim 3**, Fritsch fails to disclose “creating a thumbnail picture from the real-time multimedia data received from the transmitter each time an amount of real-time multimedia data per unit time exceeds a predetermined level; and storing thumbnail pictures with corresponding time stamps into a second memory so as to designate a desired thumbnail picture, allowing a desired location of the real-time multimedia data to be designated”.

Rangan discloses “creating a thumbnail picture from the real-time multimedia data received from the transmitter each time an amount of real-time multimedia data per unit time exceeds a predetermined level” [Col. 16 lines 18-43, Col. 22 lines 56-63, i.e. Rangan teaches that key frames (thumbnail images) are generated on the basis of scene changes. Furthermore, one of ordinary skill in the art would recognize that key

Art Unit: 2623

frames are called "frames" because their position in time is measured in frames in a media stream, which therefore meets the limitation]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Fritsch by specifically providing the creation of a thumbnail picture from the real-time multimedia data received from the transmitter each time an amount of real-time multimedia data per unit time exceeds a predetermined level, as taught by Rangan, for the purpose of allowing the user to skip backward in time while watching a program.

Rangan discloses "storing thumbnail pictures with corresponding time stamps into a second memory (cache) so as to designate a desired thumbnail picture, allowing a desired location of the real-time multimedia data to be designated" ([Col. 16 lines 27-36], i.e. Rangan teaches that the thumbnail images are stored in a digital cache.

Furthermore, one of ordinary skill in the art would recognize each thumbnail would have a corresponding time stamp to properly synchronize the incoming key frames with the currently received video). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Fritsch by specifically providing the storing of thumbnail pictures with corresponding time stamps into a second memory so as to designate a desired thumbnail picture, allowing a desired location of the real-time multimedia data to be designated, as taught by Rangan, for the purpose of allowing the user to skip backward in time while watching a program.

Regarding **claim 4**, Fritsch discloses "transmitting the time-shift transition command to the transmitter so as to receive time-shifted multimedia data from the transmitter in unicast" [0034].

Fritsch fails to disclose "when a time-shift request occurs, creating a time-shift transition command based on the thumbnail pictures with the corresponding time stamps stored in the second memory".

Rangan discloses "when a time-shift request occurs, creating a time-shift transition command based on the thumbnail pictures with the corresponding time stamps stored in the second memory" [Col. 17 lines 48-64]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Fritsch by specifically providing when a time-shift request occurs, creating a time-shift transition command based on the thumbnail pictures with the corresponding time stamps stored in the second memory, as taught by Rangan, for the purpose of allowing the user to retroactively replay video.

Regarding **claim 11**, claim 11 is interpreted and thus rejected for the reasons set forth above in the rejection claim 3. Claim 3 discloses a method for delivering multimedia data from a transmitter to each of a plurality of receivers and claim 11 discloses a system implementing the method. Thus, claim 11 is rejected.

Regarding **claim 12**, claim 12 is interpreted and thus rejected for the reasons set forth above in the rejection claim 4. Claim 4 discloses a method for delivering multimedia data from a transmitter to each of a plurality of receivers and claim 12 discloses a system implementing the method. Thus, claim 12 is rejected.

Claims 6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fritsch in view of Williamson, and in further view of Baumgartner et al. (United States Application Publication 2002/017433), herein referenced as Baumgartner.

Regarding **claim 6**, Fritsch fails to disclose “storing the real-time multimedia data received from the transmitter into a third memory; and when a time-shift request occurs, reading time-shifted multimedia data from the third memory depending on the time-shift request”.

Baumgartner discloses “storing the real-time multimedia data received from the transmitter into a third memory (hard-disk); and when a time-shift request occurs, reading time-shifted multimedia data from the third memory depending on the time-shift request (pause)” [0003]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Fritsch by specifically by storing the real-time multimedia data received from the transmitter into a third memory; and when a time-shift request occurs, reading time-shifted multimedia data from the third memory depending on the time-shift request, as taught by Baumgartner, for the purpose of allowing users to manage their viewing experiences with increased flexibility.

Regarding **claim 13**, claim 13 is interpreted and thus rejected for the reasons set forth above in the rejection claim 6. Claim 6 discloses a method for delivering multimedia data from a transmitter to each of a plurality of receivers and claim 13 discloses a system implementing the method. Thus, claim 13 is rejected.

Response to Arguments

Applicant's arguments with respect to claims 1-14, 16, 18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEXANDER Q. HUERTA whose telephone number is (571) 270-3582. The examiner can normally be reached on M-F(Alternate Fridays Off) 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2623

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alexander Q Huerta
Examiner
Art Unit 2623

May 15, 2008

/Scott Beliveau/
Supervisory Patent Examiner, Art Unit 2623